

PC EAST - [defaultmine.wsp.1]

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Drafts Pending Active

~~1111 (9) (etch or etching or etched) with (electrode or capacitor) same mineral near3 acid~~

Failed

(3311) (604/281 OR 606/155 OR 623/1 OR 606/153 OR 606/195 OR 604/104 OR 606/191 OR 606/104 OR 606/105 OR 623/11 OR 623/8 OR 623/12 OR 623/17 OR 623/925 OR 623/924)

(4647) ((623/11) OR ((623/8) OR ((623/12) OR ((623/17) OR ((623/925) OR ((623/924)

(78808) (etch or etching or etched) same (electrode or capacitor)

(53638) (etch or etching or etched) with (electrode or capacitor)

Favorites

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UDC

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Trash

Search Terms

	Total	USPAT	USOOCR	EPO	JPO	Derwent	ISI
1 ACID. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D199, D 1574626							
2 ACIDS. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D199, 445990							
3 CAPACITOR. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D 406561							
4 CAPACITORS. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, 144286							
5 ELECTRODE. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D 885222							
6 ELECTRODES. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, 533458							
7 ETCH. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D199, D 103763							
8 ETCHED. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D199 144331							
9 ETCHES. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D199 9343							
10 ETCHING. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D199 261157							
11 ETCHINGS. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D1 1341							
12 MINERAL. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D19 222661							
13 MINERALS. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D1 47834							
14 ((MINERAL NEAR3 ACID)) SAME ((ETCH OR ETCHED OR ETCHING) WITH ((CAPACITOR OR ELECTRODE)) 9							

EAST BRS search
12/16/00

Data bases: US Patents, EPO,
JPO, and Derwent.

Document ID				Resource	Page
1	CA 843543 A	DERWEN/A	1	C	
2	US 6074960	USPAT	20000613 14	M	
3	US 5439565	USPAT	19780606 5	P	
4	JP 07090606	JPO	19950404	O	
5	US 4826434	USPAT	19890502 5	D	
6	US 4426260	USPAT	19840117 4	P	
7	JP 58077598	JPO	19830510	E	
8	US 4348255	USPAT	19820907 6	P	
9	US 4093887	USPAT	19780606 5	S	

unit area.

ABSTRACTED-PUB-NO: EP 616054B

EQUIVALENT-ABSTRACTS: A method of manufacturing electrode foil for aluminium electrolytic capacitors made by carrying out an etching process divided into at least two stages, comprising the steps of: electrically etching aluminium electrode foil by passing through a mineral acid selected from the group consisting of nitric acid, sulphur acid and a mixed acid thereof having a concentration of 2 to 15%, each added with at least one selected from the group consisting of chromic acid, oxalic acid, citric acid, phosphoric acid, boric acid, succinic acid and malonic acid as an additive having a concentration of

0.1 to 0.8%, at a liquid temperature of 50 to 80 degrees C in an etching process of a final stage for increasing the diameter of pits created in a preceding stage to a diameter suitable for a forming treatment; and in the electrical etching, controlling the concentration of dissolved aluminium to 5 to 25 g/l by any of said nitric acid, said sulphuric acid and said mixed acid thereof, while keeping a dissolution amount of electric etching in said mineral acid at the rate of 20 to 60% of a total dissolution amount by etching.

US 5439565A

Mfg. electrode foil for Al electrolytic capacitors made by etching in at least 2 stages comprise etching Al electrode foil passing through HNO₃ and/or H₂SO₄ with at least 1 of chronic acid, oxalic acid, citric acid, phosphoric acid, boric acid, succinic acid and malonic acid added as an additive in an etching process of a final stage for increasing the dia. of pits created in a preceding stage to a dia. suitable for voltage formation. The concn. of dissolved Al is controlled to 5025 g/l by HNO₃ and/or H₂SO₄ in electrical etching.

Pref. the concn. of additive added is 0.1-0.8%. The HNO₃ or H₂SO₄ has a concn. of 2-15% and a liq. temp. of 50-80 deg.C. The amt. of electric etching in the HNO₃ or H₂SO₄ is 20-60% of a total amt. of dissolution by etching.

ADVANTAGE - The foil has high capacitance per unit area.

	Document ID	Source	Page	Page
1	CA 843543 A	DERWEN/A	1	C
2	US 6074960	USPAT20000613	14	M
3	US 5439565	DERWE	19950808	5
4	JP 07090606 A	JPO	19950404	7
5	US 4826434	USPAT	19890502	5
6	US 4426260	USPAT	19840117	4
7	JP 58077598 A	JPO	19830510	3
8	US 4348255	USPAT	19820907	6
	US 4093887	USPAT19830809		

DOCUMENT-IDENTIFIER: US 4093887 A

TITLE: Spark plug, particularly for internal combustion engines having composite center electrode

DEPR:

The copper of matrix material 18 can be dissolved or ~~etched~~ out from the center ~~electrode~~ 11 by a 5% ammonia solution to which an oxidation substance is added, for example about 1 to 40% ammonia persulfate, or about 1 to 15% hydrogen peroxide. Copper can also be dissolved by means of ~~mineral acids~~, such as hydrochloric acid or sulfuric acid in the range of from about 5% to highly concentrated. The acids additionally contain oxidation additives, as above described, or chromate to about 60%. Copper can also be dissolved out by oxidizing acids, such as for example HNO₃, to 10% concentrated; HNO₃ /HCl mixture 1:5 to 5:1; acidic chromate solutions.

File View Edit Tools Window Help

Drafts Pending Active

9 (etch or etching or etched) with (electrode or capacitor) same mineral near3 acid

Failed Saved

3 (3311) (604/281 OR 606/155 OR 623/1 OR 606/153 OR 606/195 OR 604/104 OR 606/191 OR 606/10
 2 (4647) ("623/11") or ("623/8") or ("623/12") or ("623/17") or ("623/925") or ("623/924")
 2 (78808) (etch or etching or etched) same (electrode or capacitor)
 2 (53638) (etch or etching or etched) with (electrode or capacitor)

Favorites Tagged UDC Queue Trash

DB: USPAI: EPO: JPO: Derwent

Search: (etch or etching or etched) with (electrode or capacitor) same mineral near3 acid

Search Terms Total USPAT USOCR EPO JPO Derwent IBM

1 ACID. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D199, D 1574626
 2 ACIDS. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D199, 445990
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 7 ETCH. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D199, D 103763
 8 ETCHED. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D199 144331
 9 ETCHES. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D199 9343
 10 ETCHING. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D199 261157
 11 ETCHINGS. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D1 1341
 12 MINERAL. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D19 222661
 13 MINERALS. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D1 47834
 14 ((MINERAL NEAR3 ACID) SAME ((ETCH OR ETCHED OR ETCHING) WITH (CAPACITOR OR ELECTRODE)) 9

EAST BRS search
 12/16/00

Document ID	Source	Issue Date	Page
1 CA 843543 A	DERWEN/A	1 C	
2 US 6074960	USPAT	20000613 14 M	
3 JP 58077598 A	JPPO	19950404 7 O	
4 JP 07090606 A	JPO	19950404 7 O	
5 US 4826434	USPAT	19890502 5 D	
6 US 4426260	USPAT	19840117 4 B	
7 JP 58077598 A	JPO	19830510 3 E	
8 US 4348255	USPAT	19820907 6 B	
9 US 4093887	USPAT	19780606 5 S	

ABSTRACTED-PUB-NO: EP 616054A

BASIC-ABSTRACT: A method of mfg. electrode foil for aluminium electrolytic capacitors, involves an etching process divided into at least two stages. In a first stage the foil is electrically etched in nitric acid, sulphuric acid or a mixt. of both. In a final stage the foil is electrically etched in a mixt. of the above acid and at least one additive acid selected from chromic acid, oxalic acid, citric acid, phosphoric acid, boric acid, succinic acid and malonic acid. During etching the concn. of dissolved aluminium is in the range 5-25g/l. The final stage increases the dia. of the pits formed in the first stage.

USE - A method of mfg. electrode foil for aluminium electrolytic capacitors.

ADVANTAGE - The method produces an electrode foil having a high capacitance per unit area.

ABSTRACTED-PUB-NO: EP 616054B

EQUIVALENT-ABSTRACTS: A method of manufacturing ~~electrode~~ foil for aluminium electrolytic ~~capacitors~~ made by carrying out an ~~etching~~ process divided into at least two stages, comprising the steps of: electrically ~~etching~~ aluminium ~~electrode~~ foil by passing through a ~~mineral acid~~ selected from the group consisting of nitric acid, sulphur acid and a mixed acid thereof having a concentration of 2 to 15%, each added with at least one selected from the group consisting of chromic acid, oxalic acid, citric acid, phosphoric acid, boric acid, succinic acid and malonic acid as an additive having a concentration of 0.1 to 0.8%, at a liquid temperature of 50 to 80 degrees C in an ~~etching~~ process of a final stage for increasing the diameter of pits created in a preceding stage to a diameter suitable for a forming treatment; and in the electrical ~~etching~~, controlling the concentration of dissolved aluminium to 5 to 25 g/l by any of said nitric acid, said sulphuric acid and said mixed acid thereof, while keeping a dissolution amount of electric ~~etching~~ in same ~~minera~~ acid at the rate of 20 to 60% of a total dissolution amount by ~~etching~~.

US 5439565A

Mfg. electrode foil for Al electrolytic capacitors made by etching in at



Document ID	Source	Issue Date	Page
1 CA 843543 A	DERWEN/A	1	C
2 US 6074960	USPAT	20000613 14	M
3 US 5439565	DERWE	19950808 5	E
4 JP 07090606 A	JP	19950404 7	
5 US 4826434	USPAT	19890502 5	D
6 US 4426260	USPAT	19840117 4	B
7 JP 58077598 A	JPO	19830510 3	E
8 US 4348255	USPAT	19820907 6	B
9 US 4093887	USPAT	19780606 5	S

CLIPPEDIMAGE= JP407090606A

PUB-NO: JP407090606A

DOCUMENT-IDENTIFIER: JP 07090606 A

TITLE: ORGANIC COATED ALUMINUM ALLOY SHEET EXCELLENT IN SPOT RESISTANCE WELDABILITY AND CORROSION RESISTANCE AND SPOT RESISTANCE WELDING METHOD USING

THE SAME

PUBN-DATE: April 4, 1995

INVENTOR-INFORMATION:

NAME

NISHIYAMA, NAOKI

TOTSUKA, NOBUO

IKEDA, TOMOMASA

HASHIGUCHI, KOICHI

NANBAE, MOTOHIRO

INT-CL (IPC): C23C022/00; B32B015/08 ; C23C022/78

ABSTRACT:

PURPOSE: To obtain an aluminum alloy sheet improved in continuous spotting properties at the time of spot resistance welding, excellent in corrosion resistance and easily and economically producible on an industrial scale.

CONSTITUTION: As pretreatment, an alumina layer on the surface is removed away by alkali etching treatment, or, in an acidic aq. soln. contg. ~~mineral acid~~,

mainly, a magensia layer is removed away. Otherwise, two treatments are successively executed, and as for the aluminum alloy sheet in which the oxidized film has been subjected to the ~~etching~~ treatment, respectively, as primary layers, a chromate film is formed on the welding joint face at the time

of spot resistance welding by the chromium coating weight of 5 to 200mg/m² expressed in terms of metal chromium, and a chromate film is

formed on the face with which an ~~electrode~~ chip is to be contacted by the chromium coating weight of 5 to 100mg/m² expressed in terms of metal

chromium and by ≤75% of the chromium coating weight in the welding joint face. Moreover, the surface is coated with organic resin as a secondary layer

by 0.01 to 3.0μm as a dry film thickness.

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1	CA 843543 A	DERWEN/A	1 C	
2	US 6074960	USPAT	20000613 14 M	
3	US 5439565	DERWE	19950808 5 E	
4	JP 07090606 A	JPO	19950404 7 O	
5	US 4826434	USPAT	19890502 5 D	
6	US 4416260	USPAT	19840117 4	
7	JP 58077598 A	JPO	19830510 3 E	
8	US 4348255	USPAT	19820907 6 P	
9	US 4093887	USPAT	19780606 5 S	

DOCUMENT-IDENTIFIER: US 4426260 A
TITLE: Preparation of aluminum electrolytic capacitor foil

CLPV:
c. treating said aluminum foil with 5-40% nitric acid at a temperature of 25.degree. C. to 95.degree. C. for a period of 10 seconds to 30 minutes, said treatment with nitric acid being carried out at a temperature and for a length of time at least sufficient to cause a reduction in the leakage current of said capacitors and being the sole ~~mineral acid~~ treatment of said electrolytically etched foil,